

**REMARKS**

The Applicant respectfully requests further examination and reconsideration in view of the amendments above and the arguments set forth fully below. Claims 1-32 were previously pending in this application. Within the Office Action, claims 1-32 have been rejected. By the above amendment, claims 1, 2, 8-10, 16-18, 24-26 and 30-32 have been amended. Accordingly, claims 1-32 are currently pending.

**Rejections under 35 U.S.C. §102(e)**

Within the Office Action, claims 1-32 have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,253,188 issued to Witek et al. (hereafter "Witek"). The Applicant respectfully traverses this rejection for the following reasons.

Witek teaches a system and method for providing classified ads over the Internet. Internet users can connect to a Newspaper web server and central Web application server to search for and obtain classified ads. Ad records are stored in ad database servers 20 for providing classified ad records on request to application servers 16. To search the ad records, the search process is divided into two principle parts. The first part includes a system entry and pre-selection sequence, and the second part includes a record selection sequence (Witek, col. 12, lines 10-13). More specifically, in the first part the user enters the system and specifies the category of classified ads to be searched. Thereafter, as the user navigates to the respective selected category, the user further specifies a subcategory for the particular category selected (Witek, col. 12, lines 27-37). The selected category and subcategory pair is identified by a category/subcategory ID 46. The second part of the search process includes entering a formal record selection query containing the specific parameters for the ad records the user wishes to see. The specific parameters are entered as primary selection parameters 60 and as secondary selection parameters 62. In summary, the first part of the search process is limited to performing searches based on category, or in other words a hierarchical search (Witek, col. 13, lines 30-46). The second part of the search process is limited to performing searches based on entered parameters, in other words keyword search or parametric search.

Search criteria entered into a keyword search text field is a text string, and parameters set using the parametric search are set parameter values. A user entering a text string or setting a parameter value, as part of using the keyword search and the parametric search, is simply inputting parameter values.

In contrast, the present invention teaches accessing a node within a directory tree structure using a query language string, where the query language string is a command string written according to a query language. The query language string designates at least the navigation through the directory tree structure to access a specific node or a discrete data item within the directory (Present Specification, page 30, lines 26-27). The structure of the query language of the present invention is preferably similar to that of SQL (structured query language), but it is specific to the combined technologies of accessing the directory tree structure and setting parameters for a search (Present Specification, page 31, lines 6-8). The query language string is a third generation language used to perform queries in the research system of the present invention. An exemplary query language string is:

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IQQUERY <instance node>/<instance name> LIST * FROM <node key>  
WHERE commercial = Y  
AND LINK DESC CONTAINS "Chevrolet";
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Clearly, using a query language to form a query language string is more than simply inputting parameter values. The query language string is a compilation of specified parameters values and commands, placed in the proper format, to be executed directly by the computer system. The query language string is the command string used to execute a search by the computer system. Search results are obtained as a result of the executed query language string. A user query as described by Witek defines search parameter values, these values are to be used in a subsequent search. However, as raw data, the search parameter values are not sufficient to actually execute the search. The search parameter values must be formatted within a command string in order to be used to perform a search. As such, a user query, as defined by Witek, is not the same as a query language string, as claimed in the present invention.

The independent claim 1 is directed to a method of accessing data within a research system by an application external to the electronic system. The method comprises formatting a searchable database within the research system into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, and an external

application different than the research system accessing one or more nodes within the directory tree structure and obtaining data from the one or more nodes by utilizing an applications programming interface (API) associated with the research system, wherein the external application formats a query language string using the API such that the formatted query language string is used directly by the research system to access the directory tree structure and obtain data from the searchable database specified by the query language string, further wherein the query language string is a command string written according to a query language. As discussed above, Witek does not teach accessing a node using a query language string. For at least these reasons, the independent claim 1 is allowable over the teachings of Witek.

Claims 2-8 depend on the independent claim 1. As described above, the independent claim 1 is allowable over the teachings of Witek. Accordingly, claims 2-8 are all also allowable as being dependent on an allowable base claim.

As an alternative reason for allowance, the dependent claim 8 includes the limitation of utilizing a search module, wherein the search module includes a keyword search, a hierarchical search, a dichotomous key search, and a parametric search. Witek does not teach a dichotomous key search.

Within the Office Action it is stated that Witek does teach a dichotomous key search. To support this assertion, Figure 3, element 70, and column 16, lines 27-50 are cited. The Applicant respectfully disagrees with this conclusion. Column 16, lines 27-50 of Witek refer to a mapped field 70 within the secondary selection parameters 62. Witek teaches that the mapped fields 70 are “yes-no” secondary features that provide details concerning the ad record subject matter. In particular, Witek teaches that the yes-no fields 70 provide up to 32 features which the user can simply check off in a selection menu (such as element 146 in Figure 10) to further describe the ad to be viewed. However, this is no different than a parametric search in which the parameters are limited to yes or no. Within the Office Action, it is stated that the present specification defines a “dichotomous key search” as the ability to instruct users through an answer and question dialog, often yes or no answers, and that Witek also gives the user the option of answering questions by checking the boxes in the selection menu. It is therefore concluded within the Office Action that these two search options are the same. The Applicant respectfully disagrees with the conclusion that the selection menu 146 including yes-no fields 70 of Witek is the same as a dichotomous key search as described in the present application.

It is well known in the art that a parametric search is a search performed that fits a number of simultaneous criteria, or parameters. Parametric searching allows people to find items

of interest based on an individual item's parameters, or particular characteristics. Data is structured into categories and subcategories and associated with parameters that describe those categories. How do parametric search engines work? Typically, a knowledge base is developed with many searchable data types associated with an instance, or item of data. These data types likely include text, text arrays, numeric ranges, boolean values, and named lists for each unique data item. All of the above types are called "parameters" or attributes of the data item.

The definition of a parametric search, as defined within the present specification, is consistent with that which is well known in the art. Specifically, the present specification refers to customizable parametric search technology that allows users to precisely locate desired information by searching parametric data that is contained within each node of a directory tree structure (Specification, page 18, lines 1-3). Each node represents a category. The types of parameters include, but are not limited to, true-false, selected list, range of values, and alphabetic list (Specification, page 27, lines 1-2).

As the definition of a parametric search is well known in the art, it is not necessary to define "parametric search" within the present claims.

It is well known in the art that a dichotomous key is a two-branched key where choosing between two characteristics continues through the key until identification is complete. There are many examples on the internet to support the well known nature of "a dichotomous key", following are just a few:

From Merriam-Webster Online Dictionary, "Dichotomous key - a key for the identification of organisms based on a series of choices between alternative characters."

From [www.mansfield.ohio-state.edu](http://www.mansfield.ohio-state.edu), "Questions are arranged hierarchically where more general questions are asked first, with questions becoming more specific asked subsequently. Questions are dichotomous meaning that each have two possible answers, with each answer distinguishing the path to the next question."

From [www.lucidcentral.com](http://www.lucidcentral.com), "Dichotomous - meaning of the word 'two-branching'. Structure of the key is that each question acts as a tree branch that has smaller branches proceeding it."

From [www.bioedonline.org](http://www.bioedonline.org), "Dichotomous key - pairs of contrasting descriptions."

The definition of a dichotomous key search, as defined within the present specification, is consistent with that which is well known in the art. Specifically, as presented in the response to the previous Office Action, the present specification refers to a dichotomous key search as “a binary key structure or two-node tree. This structure is used as a decision tree mechanism to instruct users in deciphering information given in an answer or question dialog, often a yes or no answer. Examples of this include diagnosing a medical disease, diagnosing a mechanical problem, and working a system such as classifying a biological species by physical attributes” (Present Specification, page 18, lines 6-10).

As the definition of a dichotomous key search is well known in the art, it is not necessary to define “dichotomous key search” within the present claims.

Witek teaches a yes-no field 70 (Figure 3) which is one of a secondary selection parameters 62. By the definition within Witek, the yes-no field 70 is a parameter. Specifically, the “yes-no” field is a “true-false” field, which is defined above as one type of parameter used in a conventional parametric search. As such, the yes-no field 70 of Witek is used to perform a parametric search.

The yes-no field 70 is a part of a record selection table 44, which is manifested to a user for data input via a selection parameter menu 140. Within the selection parameter menu 140 are a set of yes-no parameters 146, which correspond to the yes-no fields 70. By their vary definition, the yes-no parameters 146 are parameters, and as such, are used to perform a parametric search.

Within the Office Action, it is stated that the present specification discloses an example of a dichotomous key search being a yes no answer. However, as described above, this is only a partial definition of the dichotomous key search. A dichotomous key search, as part of the question answer format, can include a yes or no answer. However, the yes or no answer is in response to a single posed question, where the single question is the only question presented to the user. The answer to the single question leads to another, more specific, question related to the answer to the previous question. In contrast, the yes-no checkbox parameters 146 of Witek are a series of parameters which are all presented in parallel and are all answered in parallel. There is no subsequent question posed which is based on the previous yes or no selection of the checkbox 146. Witek teaches a simultaneous selection of multiple yes-no parameters, e.g. parallelism.

By definition, a dichotomous key search, at any decision step, provides a binary choice, thus the term di-chotomous. The check box form of Witek (parameters 146), are part of a larger

record selection step, where a plurality of check boxes are presented to the user. In this manner, the user is not presented with two choices, the user is presented with a yes-no option for a multitude of check boxes. So although each check box is a yes or no, the entire record selection presentation (e.g. selection parameter menu 140) includes multiple, simultaneous yes-no decisions to be made. Multiple yes-no selections are a parametric search, not a single, binary choice. As such, Witek does not teach a dichotomous key search, and the dependent claim 8 is allowable over Witek.

The independent claim 9 is directed to research system for providing access to a searchable database by an application external to the research system. The research system comprises means for formatting the searchable database into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, and means for an external application different than the research system accessing one or more nodes within the directory tree structure and obtaining data from the one or more nodes by utilizing an applications programming interface (API) associated with the research system, wherein the external application formats a query language string using the API such that the formatted query language string is used directly by the research system to access the directory tree structure and obtain data from the searchable database specified by the query language string, further wherein the query language string is a command string written according to a query language. As discussed above, Witek does not teach accessing a node using a query language string. For at least these reasons, the independent claim 9 is allowable over the teachings of Witek.

Claims 10-16 depend on the independent claim 9. As described above, the independent claim 9 is allowable over the teachings of Witek. Accordingly, claims 10-16 are all also allowable as being dependent on an allowable base claim.

As an alternative reason for allowance, the dependent claim 16 includes the limitation of utilizing a search module, wherein the search module includes a keyword search, a hierarchical search, a dichotomous key search, and a parametric search. As discussed above, Witek does not teach a dichotomous key search. Therefore, the dependent claim 16 is allowable over Witek.

The independent claim 17 is directed to research system for providing access to a searchable database by an application external to the research system. The research system

comprises a research server configured to format the searchable database into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, and an external application different than the research system to access one or more nodes within the directory tree structure and to obtain data from the one or more nodes by utilizing an applications programming interface (API) associated with the research system, wherein the external application formats a query language string using the API such that the formatted query language string is used directly by the research system to access the directory tree structure and obtain data from the searchable database specified by the query language string, further wherein the query language string is a command string written according to a query language. As discussed above, Witek does not teach accessing a node using a query language string. For at least these reasons, the independent claim 17 is allowable over the teachings of Witek.

Claims 18-24 depend on the independent claim 17. As described above, the independent claim 17 is allowable over the teachings of Witek. Accordingly, claims 18-24 are all also allowable as being dependent on an allowable base claim.

As an alternative reason for allowance, the dependent claim 24 includes the limitation of utilizing a search module, wherein the search module includes a keyword search, a hierarchical search, a dichotomous key search, and a parametric search. As discussed above, Witek does not teach a dichotomous key search. Therefore, the dependent claim 24 is allowable over Witek.

The independent claim 25 is directed to network of devices for providing access to a searchable database by an application external to the research system. The network of devices comprises one or more computer systems configured to establish a connection with other systems, and a research server coupled to the one or more computer systems to format the searchable database into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, and an external application different than the research system to access one or more nodes within the directory tree structure and to obtain data from the one or

more nodes by utilizing an applications programming interface (API) associated with the research system, wherein the external application formats a query language string using the API such that the formatted query language string is used directly by the research system to access the directory tree structure and obtain data from the searchable database specified by the query language string, further wherein the query language string is a command string written according to a query language. As discussed above, Witek does not teach accessing a node using a query language string. For at least these reasons, the independent claim 25 is allowable over the teachings of Witek.

Claims 26-30 depend on the independent claim 25. As described above, the independent claim 25 is allowable over the teachings of Witek. Accordingly, claims 26-30 are all also allowable as being dependent on an allowable base claim.

As an alternative reason for allowance, the dependent claim 30 includes the limitation of utilizing a search module, wherein the search module includes a keyword search, a hierarchical search, a dichotomous key search, and a parametric search. As discussed above, Witek does not teach a dichotomous key search. Therefore, the dependent claim 30 is allowable over Witek.

The independent claim 31 is directed to a method of accessing data within a research system by an application external to the research system. The method comprises formatting a searchable database within the research system into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, and an external application different than the research system accessing one or more nodes within the directory tree structure and obtaining data from the one or more nodes by utilizing an applications programming interface (API) associated with the research system, wherein the applications programming interface accesses the one or more nodes within the directory tree structure using a query language string, further wherein the query language string is a command string written according to a query language that defines a navigation path through the directory tree structure to access a specific node within the directory tree structure. As discussed above, Witek does not teach accessing a node using a query language string. For at least these reasons, the independent claim 31 is allowable over the teachings of Witek.



The independent claim 32 is directed to a method of accessing data within a research system by an application external to the research system. The method comprises formatting a searchable database within the electronic system into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, and an external application different than the research system accessing one or more nodes within the directory tree structure and obtaining data from the one or more nodes by utilizing an applications programming interface (API) associated with the research system, wherein accessing one or more nodes is performed utilizing a search module, the search module includes a keyword search, a hierarchical search, a dichotomous key search, and a parametric search. As discussed above, Witek does not teach a search module that includes a dichotomous key search. For at least these reasons, the independent claim 32 is allowable over the teachings of Witek.

For the reasons given above, Applicant respectfully submits that claims 1-32 are now in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, he/she is encouraged to call the undersigned attorney at (408) 530-9700.

Respectfully submitted,  
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Date: December 3, 2004

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I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450

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